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### ABSTRACT

The invention relates to a cross-connector for optical time-division multiplexed signals, whose channels are switched by means of optical control pulses. One of the optical time-division multiplexed signals is fed to a respective optical switch that has an optical combiner connected downstream of the switch. A first number of channels that branch from a first optical time-division multiplexed signal is fed to a second optical combiner at a second optical switch. A switching operation of this type for the simultaneous supply of the two branched channel groups to the two optical combiners is actuated by means of high bit-rate control signals, which are fed to the optical switches. The optical control signals control the branching or addition of individual time-division multiplexed signals.